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## SEQUENCE LISTING

JUL 09 2002

TECH CENTER 1600/2900

<110> Omermous, Thomas  
Hogan, Brigid  
Snodgrass, Ralph H  
Zupancic, Thomas J

<120> Antibodies Binding to Polypeptides Encoded by Developmentally-Regulated Endothelial Cell Locus-1

<130> 238/300

<140> US 09/237,981

<141> 1999-01-25

<150> US 08/659,235

<151> 1996-06-05

<160> 31

<170> PatentIn version 3.1

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Ser Asn Asp Gly Glu His Trp Met Val His Gln Asp Glu Lys Gln Arg  
35 40 45

Lys Asp Lys Val Phe Gln Gly Asn Phe Asp Asn Asp Thr His Arg Lys  
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Asn Val Ile Asp Pro Pro Ile Tyr Ala Arg Phe Ile Arg Ile Leu Pro  
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Arg Asn Phe Gly Ser Val Gln Phe Val Ala Ser Tyr Lys Val Ala Tyr  
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Ser Asn Asp Ser Ala Asn Trp Thr Glu Tyr Gln Asp Pro Arg Thr Gly  
 35 40 45

Ser Ser Lys Val Phe Gln Gly Asn Leu Asp Asn Asn Ser His Lys Lys  
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Asn Ile Phe Glu Lys Pro Phe Met Ala Arg Tyr Val Arg Val Leu Pro  
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Ser Glu Gln Gly Val Glu Trp Lys Pro Tyr Arg Leu Lys Ser Ser Met  
35 40 45

Val Asp Lys Ile Phe Glu Gly Asn Thr Asn Thr Lys Gly His Val Lys  
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Asn Phe Phe Asn Pro Pro Ile Ile Ser Arg Phe Ile Arg Val Ile Pro  
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Ser Gln Asp Gly His His Trp Thr Gln Ile Leu Tyr Asn Gly Lys Val  
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Lys Val Phe Gln Gly Asn Gln Asp Ser Ser Thr Pro Met Met Asn Ser  
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 <212> PRT  
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Asp Ile Ser Ser Asn Gly Glu Asp Trp Ile Thr Leu Lys Gly Asp Asn  
 35 40 45

Lys His Leu Val Phe Thr Gly Asn Thr Asp Ala Thr Asp Val Val Tyr  
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Arg Pro Phe Ser Lys Pro Val Ile Thr Arg Phe Val Arg Leu Arg Pro  
 65 70 75 80

Val Thr Trp

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Ser Asn Asn Gly Thr Glu Trp Gly Met Ile Met Asp Ser Ser Lys Asn  
35 40 45

Lys Pro Lys Thr Phe Glu Gly Asn Thr Asn Tyr Asp Thr Pro Glu Leu  
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20 25 30

Asp Asn Val Ser Trp Phe Glu Tyr Arg Asp Gly Ala Ala Ile Thr Gly  
35 40 45

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20 25 30

Xaa Tyr Ser Xaa Asp Gly Xaa Xaa Trp Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
35 40 45

Xaa Xaa Lys Xaa Lys Val Phe Xaa Gly Asn Thr Asp Xaa Xaa Thr Xaa  
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cctgcgtctc atatttctgc atgctgcttt gtttgtatat agtgcgctcc tggcctcagg 180

ctcgcctccc tccagctctc gcttcattgt tctccaagtc agaagcccc gcacccgccc 240

cgcagcagcg tgagccgtag tctactgctgg ccgcttcgcc tgcgtgcgcg cacggaaatc 300

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Gly Leu Ser Leu Gly Val Pro Gln Phe Gly Lys Gly Asp Ile Cys Asn  
15 20 25

ccg aac ccc tgt qaa aat ggt ggc atc tgt ctg tca gga ctg gct gat 747

Pro Asn Pro Cys Glu Asn Gly Gly Ile Cys ~~Leu~~ Ser Gly Leu Ala Asp  
30 35 40

gat tcc ttt tcc tgt gag tgt cca gaa ggc ttc gca ggt ccg aac tgc 795

Asp Ser Phe Ser Cys Glu Cys Pro Glu Gly Phe Ala Gly Pro Asn Cys  
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tct agt gtt gtg gag gtt qca tca gat qaa qaa aag cct/act tca qca 843

Ser Ser Val Val Glu Val Ala Ser Asp Glu Glu Lys Pro Thr Ser Ala  
60 65 70 75

qgt ccc tgc atc cct aac cca tgc cat aac qga qga acc tgt gag ata 891

Gly Pro Cys Ile Pro Asn Pro Cys His Asn Gly Gly Thr Cys Glu Ile  
80 85 90

agc gaa gcc tat cga gga gac aca ttc ata ggc tat gtt tgt aaa tgt 939  
 Ser Glu Ala Tyr Arg Gly Asp Thr Phe Ile Gly Tyr Val Cys Lys Cys  
 95 100 105

cct cgg gga ttt aat ggg att cac tgt cag cac aat ata aat gaa tgt 987  
 Pro Arg Gly Phe Asn Gly Ile His Cys Gln His Asn Ile Asn Glu Cys  
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gaa gct gag cct tgc aga aat ggc gga ata tgt acc gac ctt gtt gct 1035  
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 125 130 135

aac tac tct tgt gaa tgc cca gga gaa ttt atg gga cga aat tgt caa 1083  
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 Tyr Lys Cys Ser Gly His Leu Gly Ile Glu Gly Gly Ile Ile Ser Asn  
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cag caa atc aca gct tca tct aat cac cga gct ctt ttt gga ctc cag 1179  
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aag tgg tat ccc tac tat gct cga ctt aat aag aag ggc ctt ata aat 1227  
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gcc tgg aca gct gct gaa aat gac aga tgg cca tgg att cag ata aat 1275  
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 Arg Ile Gly Ser Pro Glu Tyr Ile Lys Ser Tyr Lys Ile Ala Tyr Ser  
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att tgt cga agg cat tgt act tta aga atg gaa ctt ctt ggc tgt gag			1563
Ile Cys Arg Arg His Cys Thr Leu Arg Met Glu Leu Leu Gly Cys Glu			
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ctc tca ggc tgt tca gaa cct ttg ggg atg aaa tca ggg cat ata caa			1611
Leu Ser Gly Cys Ser Glu Pro Leu Gly Met Lys Ser Gly His Ile Gln			
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gac tac cag atc act gcc tcc agc gtc ttc aga aca ctc aac atg gac			1659
Asp Tyr Gln Ile Thr Ala Ser Ser Val Phe Arg Thr Leu Asn Met Asp			
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atg ttt act tgg gaa cca agg aaa gcc agg ctg gac aag caa ggc aaa			1707
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Val Asp Leu Leu Val Pro Thr Lys Val Thr Gly Ile Ile Thr Gln Gly			
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gct aaa gat ttt ggt cac gtg cag ttt gtt ggg tca tac aaa cta gct			1851
Ala Lys Asp Phe Gly His Val Gln Phe Val Gly Ser Tyr Lys Leu Ala			
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Tyr Ser Asn Asp Gly Glu His Trp Met Val His Gln Asp Glu Lys Gln			
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Arg Lys Asp Lys Val Phe Gln Gly Asn Phe Asp Asn Asp Thr His Arg			
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aaa aat gtc atc gac cct ccc atc tat gca cga ttc ata aga atc ctt			1995
Lys Asn Val Ile Asp Pro Pro Ile Tyr Ala Arg Phe Ile Arg Ile Leu			
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tgc gca gag gag gaa tgaagtgcgg ggccgcacat cccacaatgc ttttctttat 2098  
 Cys Ala Glu Glu Glu  
 480

tttcctataa gtatctccac gaaatgaact gtgtgaagct gatggaaact gcatttggtt 2158

ttttcaaagt gttcaaatta tggtaggcta ctgactgtct ttttaggagt tctaagcttg 2218

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Asn Gly Gly Ile Cys Leu Ser Gly Leu Ala Asp Asp Ser Phe Ser Cys  
 35 40 45

Glu Cys Pro Glu Gly Phe Ala Gly Pro Asn Cys Ser Ser Val Val Glu  
 50 55 60

Val Ala Ser Asp Glu Glu Lys Pro Thr Ser Ala Gly Pro Cys Ile Pro  
 65 70 75 80

Asn Pro Cys His Asn Gly Gly Thr Cys Glu Ile Ser Glu Ala Tyr Arg  
 85 90 95

Gly Asp Thr Phe Ile Gly Tyr Val Cys Lys Cys Pro Arg Gly Phe Asn  
 100 105 110

Gly Ile His Cys Gln His Asn Ile Asn Glu Cys Glu Ala Glu Pro Cys  
 115 120 125

Arg Asn Gly Gly Ile Cys Thr Asp Leu Val Ala Asn Tyr Ser Cys Glu  
 130 135 140

Cys Pro Gly Glu Phe Met Gly Arg Asn Cys Gln Tyr Lys Cys Ser Gly  
 145 150 155 160

His Leu Gly Ile Glu Gly Gly Ile Ile Ser Asn Gln Gln Ile Thr Ala  
 165 170 175

Ser Ser Asn His Arg Ala Leu Phe Gly Leu Gln Lys Trp Tyr Pro Tyr  
 180 185 190

C1  
 Tyr Ala Arg Leu Asn Lys Lys Gly Leu Ile Asn Ala Trp Thr Ala Ala  
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Glu Asn Asp Arg Trp Pro Trp Ile Gln Ile Asn Leu Gln Arg Lys Met  
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Arg Val Thr Gly Val Ile Thr Gln Gly Ala Lys Arg Ile Gly Ser Pro  
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Glu Tyr Ile Lys Ser Tyr Lys Ile Ala Tyr Ser Asn Asp Gly Lys Thr  
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Trp Ala Met Tyr Lys Val Lys Gly Thr Asn Glu Glu Met Val Phe Arg  
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Gly Asn Val Asp Asn Asn Thr Pro Tyr Ala Asn Ser Phe Thr Pro Pro  
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Ile Lys Ala Gln Tyr Val Arg Leu Tyr Pro Gln Ile Cys Arg Arg His  
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Cys Thr Leu Arg Met Glu Leu Leu Gly Cys Glu Leu Ser Gly Cys Ser  
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Glu Pro Leu Gly Met Lys Ser Gly His Ile Gln Asp Tyr Gln Ile Thr  
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 370 375 380

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 385 390 395 400

His Val Gln Phe Val Gly Ser Tyr Lys Leu Ala Tyr Ser Asn Asp Gly  
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Phe Gln Gly Asn Phe Asp Asn Asp Thr His Arg Lys Asn Val Ile Asp  
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C1

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&lt;213&gt; Homo sapiens

&lt;400&gt; 14

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 35 40 45

Val Pro Gln Phe Gly Lys Gly Asp Ile Cys Asp Pro Asn Pro Cys Glu  
 50 55 60

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 65 70 75 80

Glu Cys Pro Asp Gly Phe Thr Asp Pro Asn Cys Ser Ser Val Val Glu  
 85 90 95

Val Ala Ser Asp Glu Glu Glu Pro Thr Ser Ala Gly Pro Cys Thr Pro  
 100 105 110

Asn Pro Cys His Asn Gly Gly Thr Cys Glu Ile Ser Glu Ala Tyr Arg  
 115 120 125

Gly Asp Thr Phe Ile Gly Tyr Val Cys Lys Cys Pro Arg Gly Phe Asn  
 130 135 140

Gly Ile His Cys Gln His Asn Ile Asn Glu Cys Glu Val Glu Pro Cys  
 145 150 155 160

Lys Asn Gly Gly Ile Cys Thr Asp Leu Val Ala Asn Tyr Ser Cys Glu  
 165 170 175

Cys Pro Gly Glu Phe Met Gly Arg Asn Cys Gln Tyr Lys Cys Ser Gly  
 180 185 190

Pro Leu Gly Ile Glu Gly Gly Ile Ile Ser Asn Gln Gln Ile Thr Ala  
 195 200 205

Ser Ser Thr His Arg Ala Leu Phe Gly Leu Gln Lys Trp Tyr Pro Tyr  
 210 215 220

Tyr Ala Arg Leu Asn Lys Lys Gly Leu Ile Asn Ala Trp Thr Ala Ala  
 225 230 235 240

Glu Asn Asp Arg Trp Lys Arg Trp Ile Gln Ile Asn Leu Gln Arg Lys  
 245 250 255

Met Arg Val Thr Gly Val Ile Thr Gln Gly Ala Lys Arg Ile Gly Ser  
 260 265 270

Pro Glu Tyr Ile Lys Phe Tyr Lys Ile Ala Tyr Ser Asn Asp Gly Lys  
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Arg Gly Asn Ile Asp Asn Asn Thr Pro Tyr Ala Asn Ser Phe Thr Pro  
 305 310 315 320

Pro Ile Lys Ala Gln Tyr Val Arg Leu Tyr Pro Gln Val Cys Arg Arg  
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His Cys Thr Leu Arg Met Glu Leu Leu Gly Cys Glu Leu Ser Gly Cys  
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Ser Glu Pro Leu Gly Met Lys Ser Gly His Ile Gln Asp Tyr Gln Ile  
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Glu Pro Arg Lys Ala Arg Leu Asp Lys Gln Gly Lys Val Asn Ala Trp  
 385 390 395 400

Thr Ser Gly His Asn Asp Gln Ser Gln Trp Leu Gln Val Asp Leu Leu  
 405 410 415

Val Pro Thr Lys Val Thr Gly Ile Ile Thr Gln Gly Ala Lys Asp Phe  
 420 425 430

Gly His Val Gln Phe Val Gly Ser Tyr Lys Leu Ala Tyr Ser Asn Asp  
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Gly Glu His Trp Thr Val Tyr Gln Asp Glu Lys Gln Arg Lys Asp Lys  
 450 455 460

Val Phe Gln Gly Asn Phe Asp Asn Asp Thr His Arg Lys Asn Val Ile  
 465 470 475 480

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Tyr Gly Arg Ile Thr Leu Ala Ser Glu Leu Leu Gly Cys Thr Glu Glu  
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 <213> Homo sapiens

<400> 15

Gly Glu Ala Thr Phe His Asn Arg Leu Pro Tyr Leu Gly Lys Ser Ile  
1 5 10 15

Ser Met Glu

<210> 16

<211> 9

<212> PRT

<213> Homo sapiens

<400> 16

Glu Thr Glu Trp Phe Phe Phe Phe Ser  
1 5

<210> 17

<211> 9

<212> PRT

<213> Homo sapiens

<400> 17

Lys Ser Gly Gln Ile Met Val Gly Asn  
1 5

<210> 18

<211> 4

<212> PRT

<213> Homo sapiens

<400> 18

Arg Cys Phe Tyr  
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<210> 19

<211> 318

<212> DNA

<213> mouse

<400> 19  
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accaaggag caaaaaggat tggaagccca gagtacataa aatcctacaa aattgcctac 120  
agcaatgacg ggaagacctg ggcaatgtac aaagtaaaag gcaccaatga agagatggtc 180  
tttcgtggaa atgttgataa caacacacca tatgctaatt ctttcacacc cccaatcaaa 240  
gctcagtatg taagactcta cccccaatt tgtcgaaggc attgtacttt aagaatggaa 300  
cttcttggct gtgagctc 318

<210> 20  
<211> 316  
<212> PRT  
<213> Homo sapiens

<400> 20

Cys Ser Thr Gln Leu Gly Met Glu Gly Gly Ala Ile Ala Asp Ser Gln  
1 5 10 15

Ile Ser Ala Ser Tyr Val Tyr Met Gly Phe Met Gly Leu Gln Arg Trp  
20 25 30

Gly Pro Glu Leu Ala Arg Leu Tyr Arg Thr Gly Ile Val Asn Ala Trp  
35 40 45

His Ala Ser Asn Tyr Asp Ser Lys Pro Trp Ile Gln Val Asn Leu Leu  
50 55 60

Arg Lys Met Arg Val Ser Gly Val Met Thr Gln Gly Ala Ser Arg Ala  
65 70 75 80

Gly Arg Ala Glu Tyr Leu Lys Thr Phe Lys Val Ala Tyr Ser Leu Asp  
85 90 95

Gly Arg Lys Phe Glu Phe Ile Gln Asp Glu Ser Gly Gly Asp Lys Glu

100 105 110  
 Phe Leu Gly Asn Leu Asp Asn Asn Ser Leu Lys Val Asn Met Phe Asn  
 115 120 125  
 Pro Thr Leu Glu Ala Gln Tyr Ile Arg Leu Tyr Pro Val Ser Cys His  
 130 135 140  
 Arg Gly Cys Thr Leu Arg Phe Glu Leu Leu Gly Cys Glu Leu His Gly  
 145 150 155 160  
 Cys Leu Glu Pro Leu Gly Leu Lys Asn Asn Thr Ile Pro Asp Ser Gln  
 165 170 175  
 Met Ser Ala Ser Ser Ser Tyr Lys Thr Trp Asn Leu Arg Ala Phe Gly  
 180 185 190  
 Trp Tyr Pro His Leu Gly Arg Leu Asp Asn Gln Gly Leu Ile Asn Ala  
 195 200 205  
 Trp Thr Ala Gln Ser Asn Ser Ala Lys Glu Trp Leu Gln Val Asp Leu  
 210 215 220  
 Gly Thr Gln Arg Gln Val Thr Gly Ile Ile Thr Gln Gly Ala Arg Asp  
 225 230 235 240  
 Phe Gly His Ile Gln Tyr Val Glu Ser Tyr Lys Val Ala His Ser Asp  
 245 250 255  
 Asp Gly Val Gln Trp Thr Val Tyr Glu Glu Gln Gly Ser Ser Lys Val  
 260 265 270  
 Phe Gln Gly Asn Leu Asp Asn Asn Ser His Lys Lys Asn Ile Phe Glu  
 275 280 285

Lys Pro Phe Met Ala Arg Tyr Val Arg Val Leu Pro Val Ser Trp His  
 290 295 300

Asn Arg Ile Thr Leu Arg Leu Glu Leu Leu Gly Cys  
 305 310 315

<210> 21  
 <211> 321  
 <212> PRT  
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 <222> (225)..(225)  
 <223> Xaa is Asp

<220>  
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 <222> (243)..(243)  
 <223> Xaa is Phe

<220>  
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 <222> (266)..(266)  
 <223> Xaa is Tyr

<220>  
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 <222> (277)..(277)  
 <223> Xaa is Phe

<400> 21

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 1 5 10 15

Ile Thr Ala Ser Ser Thr His Arg Ala Leu Phe Gly Leu Gln Leu Trp  
 20 25 30

Tyr Pro Tyr Tyr Ala Arg Leu Asn Lys Lys Gly Leu Ile Asn Ala Trp  
 35 40 45

Thr Ala Ala Glu Asn Asp Arg Trp Asn Arg Trp Ile Gln Ile Asn Leu  
 50 55 60

Gln Arg Lys Met Arg Val Thr Gly Val Ile Thr Gln Gly Ala Lys Arg  
 65 70 75 80

Ile Gly Ser Pro Glu Tyr Ile Lys Phe Tyr Lys Ile Ala Tyr Ser Asn  
 85 90 95

Asp Gly Lys Thr Trp Ala Met Tyr Lys Val Lys Gly Thr Asn Glu Asp  
 100 105 110

Met Val Phe Arg Gly Asn Ile Asp Asn Asn Thr Pro Tyr Ala Asn Ser  
 115 120 125

Phe Thr Pro Pro Ile Lys Ala Gln Tyr Val Arg Leu Tyr Pro Gln Val  
 130 135 140

Cys Arg Arg His Cys Thr Leu Arg Met Glu Leu Leu Gly Cys Glu Leu  
 145 150 155 160

Ser Gly Cys Ser Glu Pro Leu Gly Met Lys Ser Gly His Ile Gln Asp  
 165 170 175

Tyr Gln Ile Thr Ala Ser Ser Ile Phe Arg Thr Leu Asn Met Asp Met  
 180 185 190

Phe Thr Trp Glu Pro Arg Lys Ala Arg Leu Asp Lys Gln Gly Lys Val  
 195 200 205

Asn Ala Trp Thr Ser Gly His Asn Asp Gln Ser Gln Trp Leu Gln Val  
 210 215 220



Xaa Leu Leu Val Pro Thr Lys Val Thr Gly Ile Ile Thr Gln Gly Ala  
 225 230 235 240

Lys Asp Xaa Gly His Val Gln Phe Val Gly Ser Tyr Lys Leu Ala Tyr  
 245 250 255

Ser Asn Asp Gly Glu His Trp Thr Val Xaa Gln Asp Glu Lys Gln Arg  
 260 265 270

Lys Asp Lys Val Xaa Gln Gly Asn Phe Asp Asn Asp Thr His Arg Lys  
 275 280 285

Asn Val Ile Asp Pro Pro Ile Tyr Ala Arg His Ile Arg Ile Leu Pro  
 290 295 300

Trp Ser Trp Tyr Gly Arg Ile Thr Leu Ala Ser Glu Leu Leu Gly Cys  
 305 310 315 320

C1 Thr

<210> 22  
 <211> 25  
 <212> PRT  
 <213> Homo sapiens

<400> 22

Met Lys Arg Ser Val Ala Val Trp Leu Leu Val Gly Leu Ser Leu Gly  
 1 5 10 15

Val Pro Gln Phe Gly Lys Gly Asp Ile  
 20 25

<210> 23  
 <211> 52  
 <212> PRT

<213> Homo sapiens

<400> 23

Cys Asp Pro Asn Pro Cys Glu Asn Gly Gly Ile Cys Leu Pro Gly Leu  
1 5 10 15

Ala Val Gly Ser Phe Ser Cys Glu Cys Pro Asp Gly Phe Thr Asp Pro  
20 25 30

Asn Cys Ser Ser Val Val Glu Val Ala Ser Asp Glu Glu Glu Pro Thr  
35 40 45

Ser Ala Gly Pro  
50

<210> 24

<211> 43

<212> PRT

<213> Homo sapiens

<400> 24

Cys Thr Pro Asn Pro Cys His Asn Gly Gly Thr Cys Glu Ile Ser Glu  
1 5 10 15

Ala Tyr Arg Gly Asp Thr Phe Ile Gly Tyr Val Cys Lys Cys Pro Arg  
20 25 30

Gly Phe Asn Gly Ile His Cys Gln His Asn Ile  
35 40

<210> 25

<211> 35

<212> PRT

<213> Homo sapiens

<400> 25

Cys Glu Val Glu Pro Cys Lys Asn Gly Gly Ile Cys Thr Asp Leu Val

1

5

10

15

Ala Asn Tyr Ser Cys Glu Cys Pro Gly Glu Phe Met Gly Arg Asn Cys  
                   20                                  25                                  30

Glu Tyr Lys  
                   35

<210> 26  
 <211> 40  
 <212> PRT  
 <213> Artificial sequence

<220>  
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<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(4)  
 <223> Xaa is any one of the 20 amino acids

<220>  
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 <222> (7)..(7)  
 <223> Xaa is any one of the 20 amino acids

<220>  
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 <222> (11)..(11)  
 <223> Xaa is any one of the 20 amino acids

<220>  
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 <222> (13)..(25)  
 <223> Xaa is any one of the 20 amino acids

<220>  
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 <222> (27)..(27)  
 <223> Xaa is any one of the 20 amino acids

<220>  
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 <222> (29)..(29)  
 <223> Xaa is any one of the 20 amino acids

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 <222> (31)..(32)  
 <223> Xaa is any one of the 20 amino acids

<220>  
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 <222> (35)..(35)  
 <223> Xaa is any one of the 20 amino acids

<220>  
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 <222> (37)..(38)  
 <223> Xaa is any one of the 20 amino acids

C1 <220>  
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 <222> (40)..(40)  
 <223> Xaa is any one of the 20 amino acids

<400> 26

Cys	Xaa	Xaa	Xaa	Pro	Cys	Xaa	Asn	Gly	Gly	Xaa	Cys	Xaa	Xaa	Xaa	Xaa
1				5				10					15		

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Tyr	Xaa	Cys	Xaa	Cys	Xaa	Xaa
			20					25					30		

Gly	Tyr	Xaa	Gly	Xaa	Xaa	Cys	Xaa
		35				40	

<210> 27

<211> 310  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)..(1)  
 <223> n is a, g, t, or c

<400> 27  
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 gtaggttcct tttcctgtga gtgtccagat ggcttcacag accccaactg ttctagtgtt 120  
 gtggagggttg gtccctgcac tcctaatacca tgccataatg gaggaacctg tgaaataagt 180  
 gaagcatacc gaggggatac attcataggg tatgtttgta aatgtccccg aggatttaat 240  
 gggattcact gtcagcacia cataaatgaa tgcgaagttg agccttgcaa aaatgggtgga 300  
 atatgtacag 310

<210> 28  
 <211> 2308  
 <212> DNA  
 <213> mouse

<220>  
 <221> CDS  
 <222> (550)..(1212)  
 <223>

<220>  
 <221> misc\_feature  
 <222> (1819)..(1821)  
 <223> n is a, g, t, or c

<400> 28  
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 tctcacacgc gcgccgccac tgtttgata tagtgcgctc ctggcctcag gctcgctccc 120  
 ctccagctct cgcttcattg ttctccaagt cagaagcccc cgcacccgcc gcgcagcagc 180

gtgagccgta gtcactgctg gccgcttcgc ctgcgtgcgc gcacggaaat cggggagcca 240  
 ggaacccaag gagccgccgt ccgcccgcgt tgcctctgct agaccactcg cagccccagc 300  
 ctctctcaag cgcacccacc accactcttt tategccctt cccaagattt gagaagcgct 360  
 atcacccttt ctctagggcc accactcttt tategccctt cccaagattt gagaagcgct 420  
 gcgggaggaa agacgtcctc ttgatctctg acagggcggg gtttactgct gtcctgcagg 480  
 cgcgcctcgc ctactgtgcc ctccgctacg accccggacc agcccaggtc acgtccgtga 540  
 gaagggatc atg aag cac ttg gta gca gcc tgg ctt ttg gtt gga ctc agc 591  
           Met Lys His Leu Val Ala Ala Trp Leu Leu Val Gly Leu Ser  
           1                  5                  10  
 ctc ggg gtg ccc cag ttc ggc aaa ggt gac att tgc aac ccg aac ccc 639  
 Leu Gly Val Pro Gln Phe Gly Lys Gly Asp Ile Cys Asn Pro Asn Pro  
 15                  20                  25                  30  
 tgt gaa aat ggt ggc atc tgt ctg tca gga ctg gct gat gat tcc ttt 687  
 Cys Glu Asn Gly Gly Ile Cys Leu Ser Gly Leu Ala Asp Asp Ser Phe  
                   35                  40                  45  
 tcc tgt gag tgt cca gaa ggc ttc gca ggt ccg aac tgc tct agt gtt 735  
 Ser Cys Glu Cys Pro Glu Gly Phe Ala Gly Pro Asn Cys Ser Ser Val  
                   50                  55                  60  
 gtg gag gtt gca tca gat gaa gaa aag cct act tca gca ggt ccc tgc 783  
 Val Glu Val Ala Ser Asp Glu Glu Lys Pro Thr Ser Ala Gly Pro Cys  
                   65                  70                  75  
 atc cct aac cca tgc cat aac gga gga acc tgt gag ata agc gaa gcc 831  
 Ile Pro Asn Pro Cys His Asn Gly Gly Thr Cys Glu Ile Ser Glu Ala  
                   80                  85                  90  
 tat cga gga gac aca ttc ata ggc tat gtt tgt aaa tgt cct cgg gga 879  
 Tyr Arg Gly Asp Thr Phe Ile Gly Tyr Val Cys Lys Cys Pro Arg Gly  
 95                  100                  105                  110  
 ttt aat ggg att cac tgt cag cac aat ata aat gaa tgt gaa gct gag 927  
 Phe Asn Gly Ile His Cys Gln His Asn Ile Asn Glu Cys Glu Ala Glu  
                   115                  120                  125  
 cct tgc aga aat ggc gga ata tgt acc gac ctt gtt gct aac tac tct 975  
 Pro Cys Arg Asn Gly Gly Ile Cys Thr Asp Leu Val Ala Asn Tyr Ser

130	135	140	
tgt gaa tgc cca gga gaa ttt atg gga cga aat	tgt caa tat aaa tgc	1023	
Cys Glu Cys Pro Gly Glu Phe Met Gly Arg Asn	Cys Gln Tyr Lys Cys		
145	150	155	
tct ggg cac ttg gga atc gaa ggt ggg atc ata	tct aat cag caa atc	1071	
Ser Gly His Leu Gly Ile Glu Gly Gly Ile Ile	Ser Asn Gln Gln Ile		
160	165	170	
aca gct tca tct aat cac cga gct ctt ttt gga	ctc cag aag tgg tat	1119	
Thr Ala Ser Ser Asn His Arg Ala Leu Phe Gly	Leu Gln Lys Trp Tyr		
175	180	185	
ccc tac tat gct aga ctt aat aag aag ggc ctt	ata aat gcc tgg aca	1167	
Pro Tyr Tyr Ala Arg Leu Asn Lys Lys Gly Leu	Ile Asn Ala Trp Thr		
195	200	205	
gct gct gaa aat gac aga tgg cca tgg att cag	gta aca gtg gga	1212	
Ala Ala Glu Asn Asp Arg Trp Pro Trp Ile Gln	Val Thr Val Gly		
210	215	220	
tgagacaaat ccatttccca aattatcaga atcattatag	aagtaggtta gggagaattg	1272	
gctgtgattc tttctcatgg ttaaaatgtg atttagttca	gaattaacat gggttggaac	1332	
tctaaaaaat gtggaaaaca ggaacattct atgtctgaaa	atctgaaaat agcatcaaga	1392	
tgaaaacatt ctttagtcat aaatatactc ttttaagtta	tagtagagaa aaagatctta	1452	
tcatttcata agtggacttt tgggatagca ttggaaatgt	aatgaaata aataccta	1512	
tgaaaaaagt ttattctaaa gtgttaatat ttagcaacag	attcagagac aagaaagtaa	1572	
caattcaatc tgtgtatfff ttgtgagaaa tagtttccca	tgtgcaaata taaagtgcgc	1632	
atcatatcat gataatatcc aactgtctgc agaactccct	ttcataaatg agagaatttt	1692	
aattcatagt gccttatatc ctcatacagcc atctgacttt	actacagaag aaaacaatga	1752	
aatgatgcat taagtgcfff gctagaagaa acatcatagc	aaagctgata gccacattc	1812	
tgtgcannna agcttccaga gcactcgaga aaaagcagaa	atgagatggt ttatgaaaac	1872	
cgaaaagata atctgatttc tgtgaaatat acttttgatc	atgtggttct ttaagatagt	1932	
cactaacaag tcattagtag cagataccaa atgggagaaa	atttccagta tactgagggt	1992	

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caaggcagtc atgctgaaac tacatgaggt caggaaagtt ttgaaataag gtgatttttg 2052
aaggatacct tcaactggcc tagattttca agaaacagtg taatcaacag ccaaacatga 2112
gaatctagct aacagcattt agaaaaccag aactaagagt gttactgggg aattgcattt 2172
aatccagta tgagagtttg caaatgccgt attcttctaa ggggtttgtg ccacattttg 2232
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ataaaagccg gaattc 2308

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<210> 29
<211> 221
<212> PRT
<213> mouse

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<220>
<221> misc_feature
<222> (1819)..(1821)
<223> n is a, g, t, or c

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<400> 29

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C/ Met Lys His Leu Val Ala Ala Trp Leu Leu Val Gly Leu Ser Leu Gly  
1 5 10 15

Val Pro Gln Phe Gly Lys Gly Asp Ile Cys Asn Pro Asn Pro Cys Glu  
20 25 30

Asn Gly Gly Ile Cys Leu Ser Gly Leu Ala Asp Asp Ser Phe Ser Cys  
35 40 45

Glu Cys Pro Glu Gly Phe Ala Gly Pro Asn Cys Ser Ser Val Val Glu  
50 55 60

Val Ala Ser Asp Glu Glu Lys Pro Thr Ser Ala Gly Pro Cys Ile Pro  
65 70 75 80

Asn Pro Cys His Asn Gly Gly Thr Cys Glu Ile Ser Glu Ala Tyr Arg



85

90

95

Gly Asp Thr Phe Ile Gly Tyr Val Cys Lys Cys Pro Arg Gly Phe Asn  
                   100                                  105                                  110

Gly Ile His Cys Gln His Asn Ile Asn Glu Cys Glu Ala Glu Pro Cys  
                   115                                  120                                  125

Arg Asn Gly Gly Ile Cys Thr Asp Leu Val Ala Asn Tyr Ser Cys Glu  
                   130                                  135                                  140

Cys Pro Gly Glu Phe Met Gly Arg Asn Cys Gln Tyr Lys Cys Ser Gly  
                   145                                  150                                  155                                  160

His Leu Gly Ile Glu Gly Gly Ile Ile Ser Asn Gln Gln Ile Thr Ala  
                   165                                  170                                  175

Ser Ser Asn His Arg Ala Leu Phe Gly Leu Gln Lys Trp Tyr Pro Tyr  
                   180                                  185                                  190

Tyr Ala Arg Leu Asn Lys Lys Gly Leu Ile Asn Ala Trp Thr Ala Ala  
                   195                                  200                                  205

Glu Asn Asp Arg Trp Pro Trp Ile Gln Val Thr Val Gly  
                   210                                  215                                  220

<210> 30  
 <211> 481  
 <212> PRT  
 <213> Homo sapiens

<400> 30

Met Lys Arg Ser Val Ala Val Trp Leu Leu Val Gly Leu Ser Leu Gly  
                   1                                  5                                  10                                  15

Val Pro Gln Phe Gly Lys Gly Asp Ile Cys Asp Pro Asn Pro Cys Glu

20

25

30

Asn Gly Gly Ile Cys Leu Pro Gly Leu Ala Val Gly Ser Phe Ser Cys  
                   35                  40                  45

Glu Cys Pro Asp Gly Phe Thr Asp Pro Asn Cys Ser Ser Val Val Glu  
          50                  55                  60

Val Ala Ser Asp Glu Glu Glu Pro Thr Ser Ala Gly Pro Cys Thr Pro  
   65                  70                  75                  80

Asn Pro Cys His Asn Gly Gly Thr Cys Glu Ile Ser Glu Ala Tyr Arg  
                  85                  90                  95

Gly Asp Thr Phe Ile Gly Tyr Val Cys Lys Cys Pro Arg Gly Phe Asn  
                  100                 105                 110

Gly Ile His Cys Gln His Asn Ile Asn Glu Cys Glu Val Glu Pro Cys  
          115                 120                 125

*C* Lys Asn Gly Gly Ile Cys Thr Asp Leu Val Ala Asn Tyr Ser Cys Glu  
          130                 135                 140

Cys Pro Gly Glu Phe Met Gly Arg Asn Cys Gln Tyr Lys Cys Ser Gly  
  145                 150                 155                 160

Pro Leu Gly Ile Glu Gly Gly Ile Ile Ser Asn Gln Gln Ile Thr Ala  
                  165                 170                 175

Ser Ser Thr His Arg Ala Leu Phe Gly Leu Gln Lys Trp Tyr Pro Tyr  
                  180                 185                 190

Tyr Ala Arg Leu Asn Lys Lys Gly Leu Ile Asn Ala Trp Thr Ala Ala  
          195                 200                 205

Glu Asn Asp Arg Trp Lys Arg Trp Ile Gln Ile Asn Leu Gln Arg Lys  
 210 215 220

Met Arg Val Thr Gly Val Ile Thr Gln Gly Ala Lys Arg Ile Gly Ser  
 225 230 235 240

Pro Glu Tyr Ile Lys Phe Tyr Lys Ile Ala Tyr Ser Asn Asp Gly Lys  
 245 250 255

Thr Trp Ala Met Tyr Lys Val Lys Gly Thr Asn Glu Asp Met Val Phe  
 260 265 270

Arg Gly Asn Ile Asp Asn Asn Thr Pro Tyr Ala Asn Ser Phe Thr Pro  
 275 280 285

Pro Ile Lys Ala Gln Tyr Val Arg Leu Tyr Pro Gln Val Cys Arg Arg  
 290 295 300

His Cys Thr Leu Arg Met Glu Leu Leu Gly Cys Glu Leu Ser Gly Cys  
 305 310 315 320

Ser Glu Pro Leu Gly Met Lys Ser Gly His Ile Gln Asp Tyr Gln Ile  
 325 330 335

Thr Ala Ser Ser Ile Phe Arg Thr Leu Asn Met Asp Met Phe Thr Trp  
 340 345 350

Glu Pro Arg Lys Ala Arg Leu Asp Lys Gln Gly Lys Val Asn Ala Trp  
 355 360 365

Thr Ser Gly His Asn Asp Gln Ser Gln Trp Leu Gln Val Asp Leu Leu  
 370 375 380

Val Pro Thr Lys Val Thr Gly Ile Ile Thr Gln Gly Ala Lys Asp Phe  
 385 390 395 400

Gly His Val Gln Phe Val Gly Ser Tyr Lys Leu Ala Tyr Ser Asn Asp  
                             405                            410                            415

Gly Glu His Trp Thr Val Tyr Gln Asp Glu Lys Gln Arg Lys Asp Lys  
                             420                            425                            430

Val Phe Gln Gly Asn Phe Asp Asn Asp Thr His Arg Lys Asn Val Ile  
                             435                            440                            445

Asp Pro Pro Ile Tyr Ala Arg His Ile Arg Ile Leu Pro Trp Ser Trp  
                             450                            455                            460

Tyr Gly Arg Ile Thr Leu Ala Ser Glu Leu Leu Gly Cys Thr Glu Glu  
                             465                            470                            475                            480

Glu

C1  
 <210> 31  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<220>  
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 <222> (1)..(1)  
 <223> Xaa is any one of the 20 amino acids

<400> 31

Xaa Asp Ile Cys Asp Pro Asn Pro Cys Glu Asn Gly Gly Ile Cys Leu  
 1                            5                            10                            15

Pro Gly Leu Ala Val Gly Ser Phe Ser Cys Glu Cys Pro Asp Gly Phe  
                             20                            25                            30

Thr Asp Pro Asn Cys Ser Ser Val Val Glu Val Gly Pro Cys Thr Pro

35

40

45

Asn Pro Cys His Asn Gly Gly Thr Cys Glu Ile Ser Glu Ala Tyr Arg  
 50 55 60

Gly Asp Thr Phe Ile Gly Tyr Val Cys Lys Cys Pro Arg Gly Phe Asn  
 65 70 75 80

Gly Ile His Cys Gln His Asn Ile Asn Glu Cys Glu Val Glu Pro Cys  
 85 90 95

Lys Asn Gly Gly Ile Cys Thr  
 100